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I N D E X

TO THE

Journal of the Franklin Institute

(Including the Franklin Journal)

FOR THE

ONE HUNDRED AND TWENTY VOLUMES

FROM

1826 to 1885.

ARRANGED ACCORDING TO SUBJECTS AND AUTHORS.



PUBLISHED BY THE INSTITUTE, PHILADELPHIA, 1890.

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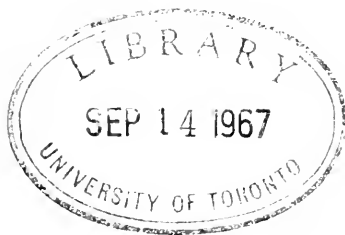
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P R E F A C E.

THE publication at present known as the JOURNAL OF THE FRANKLIN INSTITUTE, began in the year 1826, when, by arrangement with the managers of the Institute, the *American Mechanic's Magazine* became the *Franklin Journal*, published by Judah Dobson, under the patronage of the Franklin Institute. Four volumes were issued under this arrangement, which continued in force for two years, at the expiration of which time, the Institute acquired the ownership of the *Franklin Journal*, and, with the year 1828 continued the publication under the general title of *Journal of the Franklin Institute*, which it has retained to the present time. With the change of title in 1828, a new series was begun, the designation upon the title page, beginning with this year being "New Series," Volume I. The volumes of this series are numbered consecutively to twenty-six, comprising the years 1828 to 1840 (both inclusive). With the year 1841, a third series was begun, the designation upon the title page, beginning with this year, being "Third Series," Volume I. The volumes of this series are numbered consecutively to the present.

To avoid the inevitable confusion which would follow were these arbitrary series designations introduced into this general Index, it was determined to disregard them, and to refer to the volumes by a single consecutive numeration beginning with the first volume of the *Franklin Journal* (1826), as Volume I, and continuing to Volume CXX (1885), which is as far as the Index goes. In the majority of cases, this whole number is printed on the title pages of the volumes, although in some of the earlier ones it was omitted. For convenience in using this Index, therefore, it is recommended that the whole number of each volume be plainly indicated upon the back of each.

This index is divided into two alphabets, one of subjects and one of authors.

For a considerable period (1826 to 1859) the *Journal* published a list of the patents granted in the United States. These publications included an abstract of the specifications, and the claims in full, except for the patents of the years 1826-1827 and March to October of 1836, during which time the claims were omitted. In the official publication of patents made by the Government prior to 1843, the claims were omitted, and the *Journal* consequently is the only source at present available for reference to the specifications and claims of patents in the United States during that time. It can also be used in place of the official publications for the entire period (1826-1859) during which the patent lists were published therein.

In preparing an index to a work of 120 volumes embracing a record of the progress of the sciences and the arts, during a period of sixty years, in which many theories have been presented, modified, or discarded, and many new arts created, and in which many words have undergone changes in signification, numerous difficulties presented themselves.

A perfect index under the circumstances would imply a complete knowledge of all the heterogeneous materials in the work, and of the history of the progress of the sciences and the arts during the period of its publication.

In editing the work for publication it became obvious that a too rigorous adherence to the phraseology of titles on the part of the compiler greatly multiplied the difficulties, and would impair the usefulness of the work. It was, therefore, found necessary to rewrite much of it so as to adapt it better to the user's point of view.

It is hoped that whatever defects appear in this Index may be attributed to the inherent difficulties of the work, too long delayed,—and that its publication will greatly enhance the value of the *Journal* to all who may have occasion to refer to it.

PHILADELPHIA, January 1, 1890.

A KEY

GIVING THE WHOLE-NUMBER VOLUME (EMPLOYED IN THE INDEX),
CORRESPONDING TO ANY GIVEN SERIES VOLUME.

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APPENDIX.



*General Index to American Patents granted between 1825
and 1859 and published in the JOURNAL
OF THE FRANKLIN INSTITUTE.*

NOTE.—Prior to 1843, the claims of patents were omitted from the Patent Office publications, the names of inventors, and the titles of inventions, with the dates of their allowance alone being published. In 1843, the publication of the claims was commenced, beginning with patent No. 2901. There are, therefore, 2900 patents of which claims and descriptive matter were never printed by the Patent Office for public use.

From the year 1826 to 1859, the patent reports were published, more or less completely, in the *Franklin Journal*, afterwards the JOURNAL OF THE FRANKLIN INSTITUTE, and in a far more satisfactory manner than in the official records. All of these patents are entered according to subjects in the INDEX. Further mention of this feature of the JOURNAL is made in the preface.

The following table is a synopsis of these publications in the JOURNAL, and may be used as a substitute for, or in conjunction with the INDEX. By it may be found (provided the date of the granting of a patent is known),

First.—The claims of patents granted prior to 1843, all of which, with a few exceptions noted in the preface and in the table, were published in the JOURNAL.

Second.—The claims of any patents granted between the years 1843 and 1859, inclusive, more readily than from the Patent Office Reports of the same dates.

Should the patentee or the name of the invention be known, and not the *date* of the issuance of a patent, it will be necessary, as with the official reports, to refer to the "Subject-matter Index of Patents for Inventions, 1790 to 1873" (Washington,

1874), in which it will be found. The reference to the corresponding date in the table gives the volume containing the description; and at the end of each volume is a chronological index indicating at once the page.

The years and months refer to the dates at which the patents were granted; the Roman letters to the volume of the JOURNAL in which they were published.

- 1825 Dec. 12 to Dec. 31, i.
 1826 Jan. 1 to April 26, i; April 12 to Aug. 30, ii; Aug. 31 to Sept. 14, iii; Sept. and Oct., iv; Nov. 4 to 16, iii; Nov. 20 to Dec. 30, iv.
 1827 Jan. 3 to April 10, iv; Feb. 15 to Dec. 31, v.
 1828 Jan. and Feb., v; Mar. and May, vi; June (not published); July to Oct., vi; Oct. to Dec., vii.
 1829 Jan. to Mar., vii; Apr. to Sept., viii; Oct. to Dec., ix.
 1830 Jan. to Mar., ix; April to Oct., x; Oct. to Dec., xi.
 1831 Jan. to Feb., xi; Mar. to June, xii; July to Dec., xiii.
 1832 Jan. to May, xiv; June to Dec., xv; Supplemental List to July, xix.
 1833 Jan. to June, xvi; July to Sept., xvii; Supplemental List to August, xix; October (not published); Nov. and Dec., xvii; December, xviii.
 1834 Jan. to May, xviii; June to Nov., xix; December, xx.
 1835 Jan. to May, xx; June to Nov., xxi; December, xxii.
 1836 Jan. to Mar., xxii; April to Oct., xxii; Nov. and Dec. (not published).
 1837 Jan. to Mar., xxiv; April to Aug., xxv; Sept. to Nov., xxvi; November, xxxviii; December, xxvi.
 1838 Jan. and Feb., xxvi; Mar. to June, xxvii; July to Dec., xxviii.
 1839 Jan. to May, xxix; June to Oct., xxx; Nov. and Dec., xxxi.
 1840 Jan. to April, xxxi; May to Oct., xxxii; Nov. and Dec., xxxiii.
 1841 Jan. to April, xxxiii; May to Aug., xxxiv; Sept. xxxviii; Oct. and Nov., xxxix; December, xl.
 1842 Jan., xl; Jan. and Feb., xli; Mar. to April, xlii; April, xliii; May, xlii; May and June, xlv; June, xxxviii; July to Dec., xlv.
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 1844 Jan. to April, xxxviii; May to Oct., xxxix; Nov. and Dec., xl.
 1845 Jan. and Feb., xl; Mar. to July, xli; Aug. to Nov., xlii; December, xliii.
 1846 Jan. to May, xliii; June to Aug., xlv; Sept. to Dec., xlv.
 1847 Jan. to Mar., xlv; April to Sept., xlv; Oct. to Dec., xlvii.
 1848 Jan. to Aug., xlvii; Sept. to Dec., xlviii.
 1849 Jan. to April, xlviii; May to Dec., xlix.
 1850 Jan. and Feb., xlix; Mar. to Nov., l; Nov. and Dec., li.
 1851 Jan. to May, li; May to Nov., lii; Nov. and Dec., liii.
 1852 Jan. to Apr., liii; May to Nov., liv; Nov. to Dec., lv.
 1853 Jan. to May, lv; May to Nov., lvi; Nov. to Dec., lvii.
 1854 Jan. to April, lvii; May to Oct., lviii; Oct. to Dec., lix.
 1855 Jan. to April, lix; May to Nov., lx; Nov. and Dec., lxi.
 1856 Jan. to April, lxi; April to Oct., lxii; Nov. and Dec., lxiii.
 1857 Jan. to April, lxiii; April to Sept., lxiv; Oct. to Dec., lxv.
 1858 Jan. to March, lxv; Mar. to Sept., lxvi; Oct. to Dec., lxvii.
 1859 Jan. to April, lxvii; April to Sept., lxviii; Oct. to Dec., lxix.







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